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(71) Applicant and

(72) Inventor: **WIRA, Kurnia** [ID/SG]; 8 Lakepoint Drive,
#03-48, Singapore 648926 (SG).

(74) Agent: **DREW & NAPIER LLC**; 20 Raffles Place,
#17-00, Ocean Towers, Singapore 048620 (SG).

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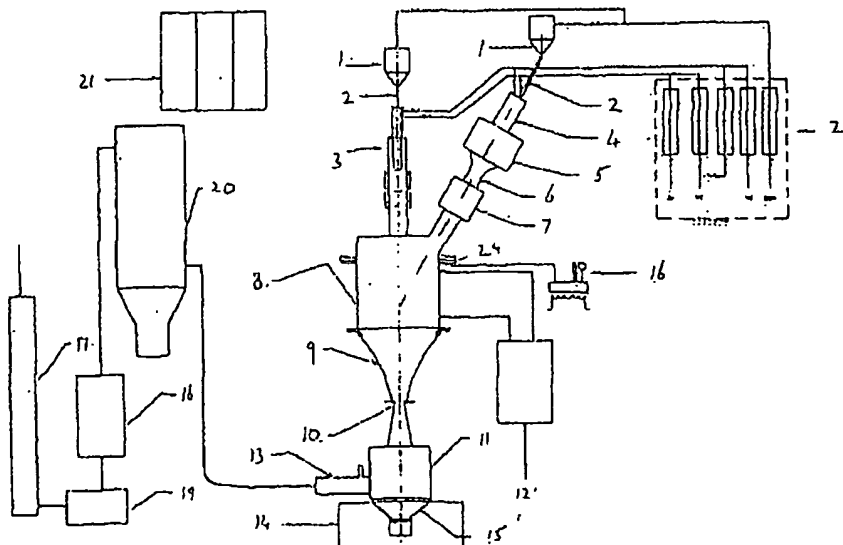
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(54) Title: **FINE PARTICLE POWDER PRODUCTION**



(57) Abstract: The present invention relates to a vapourised flow quenching reactor for producing a fine-powder from one or more reactant materials. The reactor comprises a first heat creating means selected from one of a DC plasma torch (4) and RF plasma torch (3), a first reaction chamber (5) within which energized reactant materials react and a first convergent-divergent nozzle (6) for quenching the heated reactant materials from the first reaction chamber (5). The reactor also comprises a second reaction chamber (8) provided for congregation of nano particles formed therefrom and a second convergent-divergent nozzle (9) to deliver the nano particles to a collection chamber (11).

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